

Title (en)

PALLET FORK AND CARRYING ROBOT

Title (de)

PALETTENGABEL UND TRAGEROBOTER

Title (fr)

FOURCHE DE PALETTE ET ROBOT DE TRANSPORT

Publication

**EP 4032848 A4 20221130 (EN)**

Application

**EP 20866644 A 20200917**

Priority

- CN 201921546485 U 20190917
- CN 2020115764 W 20200917

Abstract (en)

[origin: EP4032848A1] This application relates to a fork and a carrying robot. The fork includes a telescopic arm, a temporary storage tray, and a sliding assembly. The telescopic arm includes a fixed arm, a movable arm, a pusher assembly, and a driving assembly. One end of the movable arm is connected to the fixed arm, and an other end thereof is connected to the pusher assembly. The movable arm is telescopically movable relative to the fixed arm with an action of the driving assembly, and the pusher assembly is configured to pull in or push out goods. The temporary storage tray is mounted to the fixed arm and is configured to temporarily store the goods. The sliding assembly is mounted between the fixed arm and the temporary storage tray and is capable of pushing the temporary storage tray to make the temporary storage tray extend relative to the fixed arm. An extending direction of the temporary storage tray is consistent with an extending direction of the movable arm. According to the fork and the carrying robot of this application, the sliding assembly is capable of pushing the temporary storage tray to make the temporary storage extend relative to the fixed arm. Therefore, when the fork of this application pulls in or pushes out the goods, containers can be stably transferred between a stationary rack and the temporary storage tray.

IPC 8 full level

**B66F 9/12** (2006.01); **B66F 9/06** (2006.01); **B66F 9/075** (2006.01); **B66F 9/19** (2006.01)

CPC (source: EP KR US)

**B65G 1/04** (2013.01 - US); **B65G 1/0435** (2013.01 - EP US); **B66F 9/063** (2013.01 - EP); **B66F 9/12** (2013.01 - US); **B66F 9/122** (2013.01 - KR); **B66F 9/141** (2013.01 - EP); **B66F 9/149** (2013.01 - EP US); **B66F 9/18** (2013.01 - KR); **B66F 9/195** (2013.01 - KR US)

Citation (search report)

- [X] WO 2019095803 A1 20190523 - SHENZHEN HAIROU INNOVATION TECH CO LTD [CN]
- [A] JP 2011162278 A 20110825 - IHI CORP
- See also references of WO 2021052393A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**EP 4032848 A1 20220727**; **EP 4032848 A4 20221130**; AU 2020350944 A1 20220324; AU 2020350944 B2 20231102; AU 2024200110 A1 20240125; CA 3149595 A1 20210325; CA 3149595 C 20240528; CN 114514189 A 20220517; CN 114514189 B 20230606; CN 211056639 U 20200721; DE 202020005899 U1 20230206; DE 212020000724 U1 20220629; JP 2022545523 A 20221027; JP 2023164756 A 20231110; JP 7360543 B2 20231012; KR 20220061141 A 20220512; US 11548770 B2 20230110; US 2022204329 A1 20220630; WO 2021052393 A1 20210325

DOCDB simple family (application)

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